

REMARKS

Claims 1-3, 7-9 and 11-19 are pending in this application.

By this Amendment, claims 1 and 3 are amended to more fully distinguish the invention of the claims over the references cited against these claims. Claims 7, 14 and 15 are amended to cure informalities. Claims 18 and 19 are added. Claims 4-6 and 10 are canceled.

No new matter is added by this Amendment. Support for the language added to claims is found in the original specification, claims and Figures. In particular, support for the language added to claim 1 is found at, for example, original claims 1 and 4-6. Support for the language added to claim 3 is found at, for example, original claims 4-6. Support for new claims 18 and 19 is found, for example, at page 4, lines 1-8.

I. Priority

The Office Action asserts that a photocopy of British application GB 0019200.9 filed on August 5, 2000 is required under 35 U.S.C. §119(b). To this end, Applicants herein submit a copy of EP 1177855 (formerly GB 0019200.9). Applicants submit the requirements of the Patent Office have been met.

II. Information Disclosure Statement

The Office Action alleges that GB 0019199.9 is referred to in the specification without having been listed on a form PTO-1449. To this end, Applicants herein submit a form PTO-1449 listing the EP 1177855 reference (formerly GB 0019199.9) therein as well as a copy of the EP 1177855 reference. Applicants submit the requirements of the Patent Office have been met.

III. Drawings

The Office Action alleges that the "rolling contact" recited in claim 10 is not shown in the drawings. The Office Action requires that the "rolling contact" be shown in the drawings

or canceled from the claims. To this end, Applicants herein cancel claim 10. Applicants submit the requirements of the Patent Office have been met.

IV. Specification

The Office Action objects to the specification for allegedly including section headings. To this end, Applicants amend the specification to include section headings. Applicants submit the requirements of the Patent Office have been met.

V. Claim Objections

The Office Action objected to claims 1-17 because the term "characterised" in claims 1 and 3 should allegedly be changed to "characterized." To this end, Applicants amend each of claims 1 and 3 to replace "characterised in that" with "wherein." Applicants submit the requirements of the Patent Office have been met.

VI. Rejection Under 35 U.S.C. §112, second paragraph

Claims 6, 7, 10 and 17 were rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. In particular, the Office Action alleges there is insufficient antecedent basis for "the female and the male parts" in lines 2-3 of claim 6 and that the term "for example" recited in claim 7 renders the claim indefinite. With respect to claim 17, the Office Action alleges that it is unclear which bearing arrangement Applicants are intending to modify.

Claims 6 and 10 are canceled. As such, the rejection with respect to claims 6 and 10 is moot. Claim 7 is amended to remove all terms within parenthesis, including the terms "for example." Claim 17 is amended to specify the "first" bearing arrangement. Applicants submit the requirements of the Patent Office have been met. Reconsideration and withdrawal of the rejection are thus respectfully requested.

VII. Rejection Under 35 U.S.C. §102(b)

Claims 1-4 and 8-12 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 5,486,054 (hereinafter "Nagata et al."). This rejection is respectfully traversed.

Claims 4 and 10 are canceled. Thus, with respect to claims 4 and 10, this rejection is moot.

Claim 1 recites a bearing arrangement comprising two bearing assemblies both located on the same axis, each bearing assembly comprising two parts including a female part having a recess or aperture and a male part acceptable into the recess or aperture in sliding contact during their relative rotation, at each assembly the sliding contact taking place in a respective plane at a plurality of discrete locations on the male or female parts, wherein one of the assemblies allows resilient displacement of its contact plane and the other of the assemblies is relatively rigid for preventing substantial displacement of its contact plane.

Nowhere does Nagata disclose a bearing arrangement which inter alia has sliding contact of male and female parts, the sliding contact occurring at discrete locations in a plane, as required by claim 1 of the present application. That is, nowhere does Nagata teach or suggest two bearing assemblies each comprising two parts including a female part having a recess or aperture and a male part acceptable into the recess or aperture in sliding contact during their relative rotation, at each assembly the sliding contact taking place in a respective plane at a plurality of discrete locations on the male or female parts, as recited in claim 1.

For at least the foregoing reason, Applicants submit that Nagata fails to anticipate claim 1, or any of the claims dependent therefrom. Reconsideration and withdrawal of the rejection are thus respectfully requested.

VIII. Rejections Under 35 U.S.C. §103(a)

A. Nagata in view of Koyama

Claims 5-7 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Nagata in view of U.S. Patent No. 6,406,191 (hereinafter "Koyama"). This rejection is respectfully traversed.

Claims 5 and 6 are canceled. Thus, this rejection with respect to claims 5 and 6 is moot.

The Patent Office alleges that Koyama teaches a bearing assembly having a male part and a female part in sliding contact. The Patent Office further alleges that it would have been obvious to modify Nagata with the teachings of Koyama to allow for miniaturizing of the bearing assembly as well as self-centering characteristics that create a more robust design. The Patent Office acknowledges that Koyama does not disclose a circular/non-circular respect relationship, but then alleges that such a configuration is deemed to be a matter of obvious design choice.

Claim 7 depends from claim 1 and adds that the discrete locations are provided by a non-circular recess or aperture in the female part co-operating with a circular male part, or are provided by a circular recess or aperture in the female part co-operating with a non-circular male part.

However, even if one skilled in the art would have found the configuration of a non-circular recess or aperture in the female part co-operating with a circular male part, or are provided by a circular recess or aperture in the female part co-operating with a non-circular male part to be an obvious design choice, the presently claimed invention still would not have been achieved.

Nagata and Koyama fail to disclose the features of claim 1, or claim 7 dependent therefrom. Instead, Nagata teaches use of a ballrace 25 (see Figure 1), and Koyama teaches use of a ball 14 or cone 12d in a recess 11c (see Figures 1 and 2).

Nowhere do Nagata and Koyama, whether alone or in combination, teach or suggest sliding contact between bearing parts at discrete locations, as discussed above with respect to claim 1. Further, the use of discrete locations allows for greater accuracy. Nowhere is this benefit taught or suggested by Nagata and/or Koyama.

For the foregoing reasons, Applicants submit that Nagata and/or Koyama fail to render obvious claim 1 or the claims dependent therefrom. Reconsideration and withdrawal of the rejection are thus respectfully requested.

B. DE '161 in view of Nagata

Claims 1-4 and 13-17 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over German Patent DE 4315161 (hereinafter "DE '161) in view of Nagata. This rejection is respectfully traversed.

Claim 4 has been canceled. Thus, with respect to claim 4, this rejection is moot. Each of claims 2, 3 and 13-17 depend, either directly or indirectly, from claim 1.

The Patent Office alleges that DE '161 teaches all of the features of claim 1 except a bearing arrangement comprising two bearing assemblies both located on the same axis; each bearing assembly comprising two parts in contact during their relative rotation. The Patent Office then alleges that Nagata cures this deficiency. In particular, the Patent Office alleges that it would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the bearing arrangement of Nagata with DE '161 to improve the operational accuracy of the rotational mechanism for which the bearing arrangement serves.

Even if one of ordinary skill in the art could have combined the references as alleged by the Patent Office, the currently claimed invention still would not have been achieved. Specifically, neither DE '161 nor Nagata, whether alone or in combination, teach or suggest two bearing assemblies each comprising two parts including a female part having a recess or aperture and a male part acceptable into the recess or aperture in sliding contact during their relative rotation, at each assembly the sliding contact taking place in a respective plane at a plurality of discrete locations on the male or female parts, as recited in claim 1.

For at least the foregoing reasons, Applicants submit that DE '161 and Nagata, whether alone or in combination, fail to render obvious the subject matter of claim 1 or the claims dependent therefrom. Reconsideration and withdrawal of the rejection are thus respectfully requested.

IX. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-3, 7-9 and 11-19 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Linda M. Saltiel
Registration No. 51,122

JAO:LMS/hs

Attachment:

EP1177855
Form PTO-1449

Date: June 25, 2004

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

DEPOSIT ACCOUNT USE
AUTHORIZATION
Please grant any extension
necessary for entry;
Charge any fee due to our
Deposit Account No. 15-0461